

Cytokine regions susceptible to protease attack identified by structural alignment with Lead mutants
of IFN α -2b

IFN- α 2b CDLPQTHSLGSRRTLMLLAQMRRIISLFSCLKDRHDFGFPQEEFGNQFQKAETIPVLHEMIQQIFNLFSTKDSAAWDETLDDKFYTELYQQLNDLEACVIQG

VGVTETPLMKEDSILAVRKYFQRITLYLKEKRYSPCAWEEVWRAEIMRSFSLSTNNLQESLSRKE

Exemplary protein of the interferons/interleukin-10 family

IFN- β MSYNLLGFLQRSNFCQKLLWQLNGRLEYCLKDRMNFDIPEEIKLQKQFQKEDAAALTIYEMLQNIFAIFRODSSSTGWNETIVENLLANVYHQINHLKTVLEEK

LEKEDFTRGKLMSSLHLKRYYGRILHYLKAKEYSHCAWTIVRVEILRNIFYFINRLTGYLRN

Exemplary protein of the short-chain cytokines family

EPO APPRLICDSRVLERYLLEAKEAENITTGCAEHC^{SL}ENITVPD^{TK}NVFYANKRMEVGGQAVEVWQGLALLSEAVLRGQALLVNSSQ^{PWE}PLQLHVDKAVSGLRSL

TTLLRALGAQKEAISPPDAAASAAPLRTITADTFRKLFVYSNFLRGKCLKLYTGEACRTGDR

Exemplary protein of the long-chain cytokines family

G-CSF TPLGPASSLPQSFLCLKLEQVRKIQGDGAALQEKLVSECATYKLCHPHEELVLLGHSLGIPWAPLSSCP^{SQA}LQLAGCL^{SQ}LHSGFLYQGLLQALEGISPELGP^{TLD}TLQL

DVADPATTIWQMEELGMAPALQPTQGAMPAFASAFQRRAGGVLVASHLQSFLEVSRYRLRHLAQP

FIG. 9

